

Government Degree College
Nelakondapally

ZOOLOGY DEPARTMENT

BEST PRACTICES

2020-21

Government Degree College
Nelakondapally

Best Practices - 2020-21
Zoology

Topic :- Estimation of Haemoglobin
in our college

Submitted by

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TO

Department of Zoology
ADC Nelakondapally

Estimation of Haemoglobin in our college students

Introduction :-

- Haemoglobin is a "conjugate protein". It carries the oxygen to the body in different parts.
- It is play an important role in air trac they are.
 - 1) It transferees the oxygen to the tissues from the lungs.
 - 2) CO₂ is transfers to the lungs from different tissues it leaves outside by aspiration.
- Haemoglobin has "Red blood" cells so it looks red in colour and it is a oxygen transport of respiratory pigment.

To estimate the percentage of haemoglobin

Requirements :-

Haemometer

decinormal (N/10) HCl.

distilled water.

- The haemoglobin consist of two sealed lateral comparision tuber containing a suspension of acid haemation.
- These are held in a black frame against a white ground glass besides a graduated test tube of the same diameter is also provided.

principle :-
mmmm

→ The method to estimate the haemoglobin percentage of blood based on the principle of making an acid haemation solution of blood under experimentation in the graduated tube & then comparing it with the sealed comparison tubes containing the standard acid Haemation.

Procedure :-
mmmm

→ The graduated tube is first cleaned with distilled water and then with methylated spirit or 90% alcohol.

→ It is thoroughly dried up before being used now with the help of dropper mark.

→ The N/10 HCl solution filled with in the graduated tube up to 2 grms mark.

→ The micropipette is filled up by sucking blood fresh of vertibrate under experimentation to the mark of 20 cmm.

precautions :-

- The following precautions are to be taken.
- In case human blood is being tested give a light pink prick to the finger tip of the person providing blood.
- The finger of prick (needle) should be disinfected first with methylated spirit (or) alcohol (90% or absolute).
- Avoid uncleaned tubes of pipettes etc
- Avoid in correct filling up of micropipette.
- Avoid inclusions of blood sticking at the outer surface of the mouth of the pipette.
- Reading should be taken always of the upper meniscus.
- Experiment waste of time so that fresh blood is not allowed to coagulate before to decinormal HCl.

→ This should be continued till the colour of the acid haemation solution just fades away as compared to that of the standard comparison tubes.

→ The reading before the colour just fades is taken as the correct and final reading.

Observation :-
mmmm

→ The readings are tabulated in the following manner :-

H. NO	Name of the student	class / group	HB %	Signature
1. 427201102	B. Kalyani	II BA	70	B. Kalyani
2. " 1103	D. Saiteja	II BA	85	D. Saiteja
3. 1107	K. Maneesha	II BA	80	K. Maneesha
4. 1108	K. Naveen	II BA	60	K. Naveen.
5. 1112	P. Srilatha	II BA	60	P. Srilatha
6. 1113	P. Durga bharani	II BA	70	P. Durga bharani
7. 1114	SK. Hussain	II BA	80	SK. Hussain
8. 1115	S. Vidya Sagar	II BA	86	S. Vidya Sagar
9. 1117	V. Upendar	II BA	84	V. Upendar.
10. 42720 1301	Ch. Naveen	II BA	90	Ch. Naveen
11. " 1302	T. Prasanna	II BA.	80	T. Prasanna
12. 42720 1001	P. Anusha	B.A. Comp. Ap.	76	P. Anusha

	H. NO	Name of the student	class/ group	HB %	signature.
13	42720 2001	B. Nagaraju	II Bcom	75	B. Nagaraju
14	" 2002	D. Supraja	II Bcom	70	D. Supraja
15	" 2003	K. Pramod	II Bcom	72	K. Pramod
16	" 2004	P. Rajeshwari	II Bcom	43	P. Rajeshwari
17	" 2005	R. Mounika	II Bcom	52	R. Mounika
18	" 2006	V. Chandu	II Bcom	60	V. Chandu
19	42720 3001	Ch. Nisha Keerthana	II BZC	70	Ch. Nisha Keerthana
20	42720 3201	P. Shivaiah	II BZC	82	P. Shivaiah
21	42720 4001	A. Pravalika	II MPC	50	A. Pravalika
22	42720 4002	M. Laxmi Devi	II MPC	53	M. Laxmi Devi
23	42711005	K. Sagar	I BA	60	K. Sagar
24	1006	K. Buchibabu	I BA	55	K. Buchibabu
25	42721 2002	G. Anusha	I Bcom	60	G. Anusha
26	427214102	T. Dayapal	I Bcom	70	T. Dayapal
27	42721 3005	P. Bhargavi	I BZC	75	P. Bhargavi

- The small amount of blood adhering to the outside of micropipette should be wiped off by sterilized cotton.
- The blood of micropipette should be introduced carefully into the tube and its lower mouth should be pass right upto the bottom into the HCl solution.
- When blood has been expelled the pipette rinsed twice or thrice by distilled water.
- Everytime the contents of micropipette should be expelled into the graduated tube.
- The acid haematin solution is now thoroughly stirred with the help of a glass rod and then allowed to stand at least for 10 min.
- Afterwards the acid haematin solution is gradually diluted by adding distilled water the solution should be stirred drop wise manner.
- With the addition of each drop of distilled water the solution should be stirred and its colour. Matched with that of the standard sealed tubes.


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Estimation of Haemoglobin

